PB90-114828

Superfund Record of Decision (EPA Region 5): Wedzeb Enterprises, IN (First Remedial Action), June 1989

(U.S.) Environmental Protection Agency, Washington, DC

30 Jun 89

U.S. Department of Commerce
National Technical Information Service
NTIS

United States
Environmental Protection
Agency

Office of
Emergency and
Remedial Response

EPA/ROD/R05-89/097
June 1989

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EPA

Superfund Record of Decision:

Wedzeb Enterprises, IN

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
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4. Title and Subtitle SUPERFUND RECORD OF DECISION Wedzeb Enterprises, IN First Remedial Action - Final			5. Report Date 06/30/89 6.
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9. Performing Organization Name and Address			10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460			13. Type of Report & Period Covered 800/000 14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

The 0.75-acre Wedzeb Enterprises site is located in Lebanon, Indiana, in a mixed residential and light industry neighborhood. About 300 houses are located within 500 feet of the site perimeter. Originally, two warehouses, one of which was used as a storage facility for electrical capacitors and transformers containing polychlorinated biphenyls (PCBs), were located on site. In May 1981 the warehouse used for storage was completely destroyed by fire, which raised concerns about the release of PCBs into the environment and the potential formation of new compounds such as dioxins and furans. The warehouse contained an estimated 77 tons of electrical capacitors at the time, some of which exploded during the fire. In October 1987 EPA completed a removal action removing onsite debris and contaminated soil and replacing it with clean fill. The remediation of the sanitary sewer sediment in this action serves as a cautionary measure because contaminants may have been washed into the sewer lines during the fire, providing a source of long-term contaminant release to the Lebanon publicly-owned treatment works (POTW). The primary contaminants of concern affecting the sewer sediment are PCBs.
(See Attached Sheet)

17. Document Analysis a. Descriptors

Record of Decision - Wedzeb Enterprises, IN
First Remedial Action - Final
Contaminated Medium: sediment
Key Contaminants: organics (PCBs)

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) None	21. No. of Pages 72
	20. Security Class (This Page) None	22. Price

(See ANSI-Z39.18) *See Instructions on Reverse*

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

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Wedzeb Enterprises, IN
First Remedial Action - Final

16. Abstract (continued)

The selected remedial action for this site includes cleaning the sewer lines with hydraulic jets and vacuum pumping to remove contaminants, followed by filtering the resulting water and sediment to remove PCB-contaminated sediment, and discharging the water to the POTW; offsite incineration and disposal of the estimated 2 drums of sediment and 20 drums of remedial investigation generated waste if PCB levels are 50 mg/kg or greater, or offsite disposal only if PCB levels are below 50 mg/kg; and a television inspection of the pipeline to ensure structural integrity. The estimated present worth cost for this remedial action is $45,000; there are no O&M costs.

ATTENTION

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U.S. EPA
OSWER - HSCD

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

WEDZEB ENTERPRISES
LEBANON, INDIANA

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Wedzeb Enterprises Site, developed in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the National Contingency Plan. This decision is based on the administrative record for this site. The attached index identifies the items that comprise the administrative record upon which the selection of the remedial action is based. The State of Indiana has concurred on the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imininent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE REMEDY

This final remedy addresses the principal threat posed by the site by removing contaminated sewer sediments and disposing of them off-site. The Remedial Investigation (RI) found that previous removal actions were adequate to protect human health and the environment, and that potential risk does not exceed U.S. EPA's acceptable health risk range at the site for groundwater, soils, and warehouse surfaces. Therefore, no further action will be taken for these media. Remediation of the sanitary sewer sediments serves as a cautionary measure against potential future releases from the contaminated sewer line to the Lebanon Treatment Plant.

The major components of the selected remedy include:

- Sewer pipe cleaning via hydraulic jetting and vacuum pumping to remove contaminants.
- Inspection of the sewer pipe.
- Incineration of contaminated sediments.
- Filter sewer sediments and discharge clean water to Public Owned Treatment Works (POTW).
- Remove and dispose of RI generated wastes.

DECLARATION

The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate for this remedial action, and is cost-effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

Because this remedy will not result in hazardous substances remaining on-site above health-based levels, the five-year facility review will not apply to this action.

30 JUN 1989

Date

/s/ original signed by
Valdas V. Adamkus

Valdas V. Adamkus
Regional Administrator
Region V.

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RECORD OF DECISION SUMMARY
WEDZEB ENTERPRISES

I. SITE DESCRIPTION

The Wedzeb Enterprises site is located at 320 South Ballard Street in Lebanon, Indiana (population approximately 12,500). Lebanon is approximately 30 miles northwest of Indianapolis, as shown by the Location Map, Figure 1. The roughly 0.75 acre site currently contains a warehouse on the western portion of the site.

As shown on Figure 2, the site is located in a mixed residential and light industrial neighborhood near the downtown section of Lebanon. Directly to the north are two residences, the nearest of which is approximately 50 feet from the northern edge of the site and has its garage immediately adjacent to the site boundary. Railroad tracks and piles of consolidated materials from Irving Materials, Inc., a cement production facility, lie directly to the south. Further south, less than 400 feet from the site, is a large mobile home park. A small industry abuts the eastern edge of the site. The Wedzeb western warehouse is used for storage by this small industry. A paved road along the northern boundary of the site provides access to this facility. West, northwest, southwest and northeast of the site is residential development. In summary, about 300 houses and a greater number of mobile homes are located within 500 feet of the site perimeter.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Site History

On May 2, 1981, one of two warehouses originally located on the property was completed destroyed by a fire. The warehouse that was destroyed, located on the east site of the property, had been used as a storage facility for electrical capacitors and transformers containing polychlorinated biphenyls (PCBs). According to the company's inventory records, the warehouse contained seventy-seven tons of electrical capacitors, some of which exploded during the fire. As a result of the fire U.S. EPA was concerned that PCBs may have been released into the environment and contaminants may have been washed to nearby ground surfaces and the sanitary sewer system as the fire was being extinguished. In addition, other organic compounds may have been created in the burning of PCBs, particularly dioxin and furans, and released into the environment as well.

A chronology of events resulting from the warehouse fire is summarized in Table 1.

TABLE 1
CHRONOLOGY OF EVENTS SUMMARY
WEDZEB ENTERPRISES SITE

May 2, 1981	The eastern warehouse, which contained transformers with PCB oil, was destroyed by fire.
May 4, 1981	The Indiana State Board of Health (ISBH) collected sediment samples from Prairie Creek, the receiving stream for the Lebanon storm sewer and sewage treatment plant discharge.
May 7, 1981	The Technical Assistance Team (TAT) collected samples of onsite surface soil and debris, offsite surface soil, sediment from Prairie Creek, soot from the fire-fighting equipment, and primary clarifier sludge from the Lebanon wastewater treatment plant.
July, 1981	Mr. Daniels, the site owner, contracted Hazardous Materials Management, Inc. (HMM) to investigate the site and provide a cleanup plan. HMM subsequently subcontracted O.A. Laboratories to collect samples.
July 8, 1981	O.A. Laboratories collected residues from onsite capacitors and debris, residue from the wall of the west warehouse, and offsite surface soil samples.
August 28, 1981 and September 25, 1981	ISHB resampled primary clarifier sludge from the Lebanon municipal wastewater treatment plant.
October 8, 1981 and April 30, 1982	Indiana Environmental Management Board (IEMB) asked Mr. Daniels to submit a proposal for cleanup of the site.
May 18, 1982	A Complaint for Injunction was filed by the State of Indiana in the Boone County Circuit Court regarding the Wedzeb Enterprises site.
August 27, 1982	A State of Indiana Consent Decree was signed to settle the complaint.
October 23, 1983	ISBH requested U.S. EPA to consider an immediate removal action at the site.

TABLE 1 (Continued)
CHRONOLOGY OF EVENTS SUMMARY
WEDZEB ENTERPRISES SITE

November 3, 1983	The TAT conducted a second site assessment. One onsite debris sample and several offsite soil samples were taken as part of the assessment.
December, 1983	A Site Assessment and Emergency Action Plan were submitted to U.S. EPA by the TAT. Site finalized on National Priority List (NPL) of abandoned or uncontrolled hazardous waste sites. During the period between December 1983 and May 1985, U.S. EPA and the State of Indiana conducted negotiations with Mr. Daniels to perform response actions at the site.
May 31, 1985	U.S. EPA requested that Mr. Daniels enclose the south side of the site with secure fencing and that temporary windbreaks be installed to minimize transport of contaminated dust to offsite locations.
July 2, 1985	Mr. Daniel notified the U.S. EPA that he repaired the fences and installed windbreaks.
October 2, 1985	U.S. EPA issued a Unilateral Administrative Order to Wedzeb Enterprises requiring site cleanup. U.S. EPA approved an immediate removal action to clean up the majority of the onsite contaminated surface soil and debris.
October 21, 1985	Wedzeb Enterprises submitted an operational plan for site cleanup to U.S. EPA.
November 26, 1985	The Wedzeb Enterprises operational plan was approved by the U.S. EPA.
December 13, 1985	Wedzeb Enterprises notified U.S. EPA that due to financial hardship it could not perform the cleanup.

TABLE 1 (Continue)
CHRONOLOGY OF EVENTS SUMMARY
WEDZEB ENTERPRISES SITE

October 1987	The TAT completed an immediate removal action. The debris from the earlier fire at the east warehouse and the contaminated soil onsite were removed from the site and replaced by clean fill. The contaminated soil was sent to Emelle, Alabama, and disposed of in the Emelle Landfill.
November 1987	The U.S. EPA began the Phase I RI.
January 13, 1989	The final Phase I RI report was completed and submitted to U.S. EPA. Based on this report, it was determined that a Phase II RI would not be necessary.
February 9, 1989	U.S. EPA and Indiana Dept. of Environmental Management (IDEM) conducted a public meeting to present the results of the final Phase I RI report.
May 22, 1989	U.S. EPA issued the Technical Memorandum and Proposed Plan for public comment.

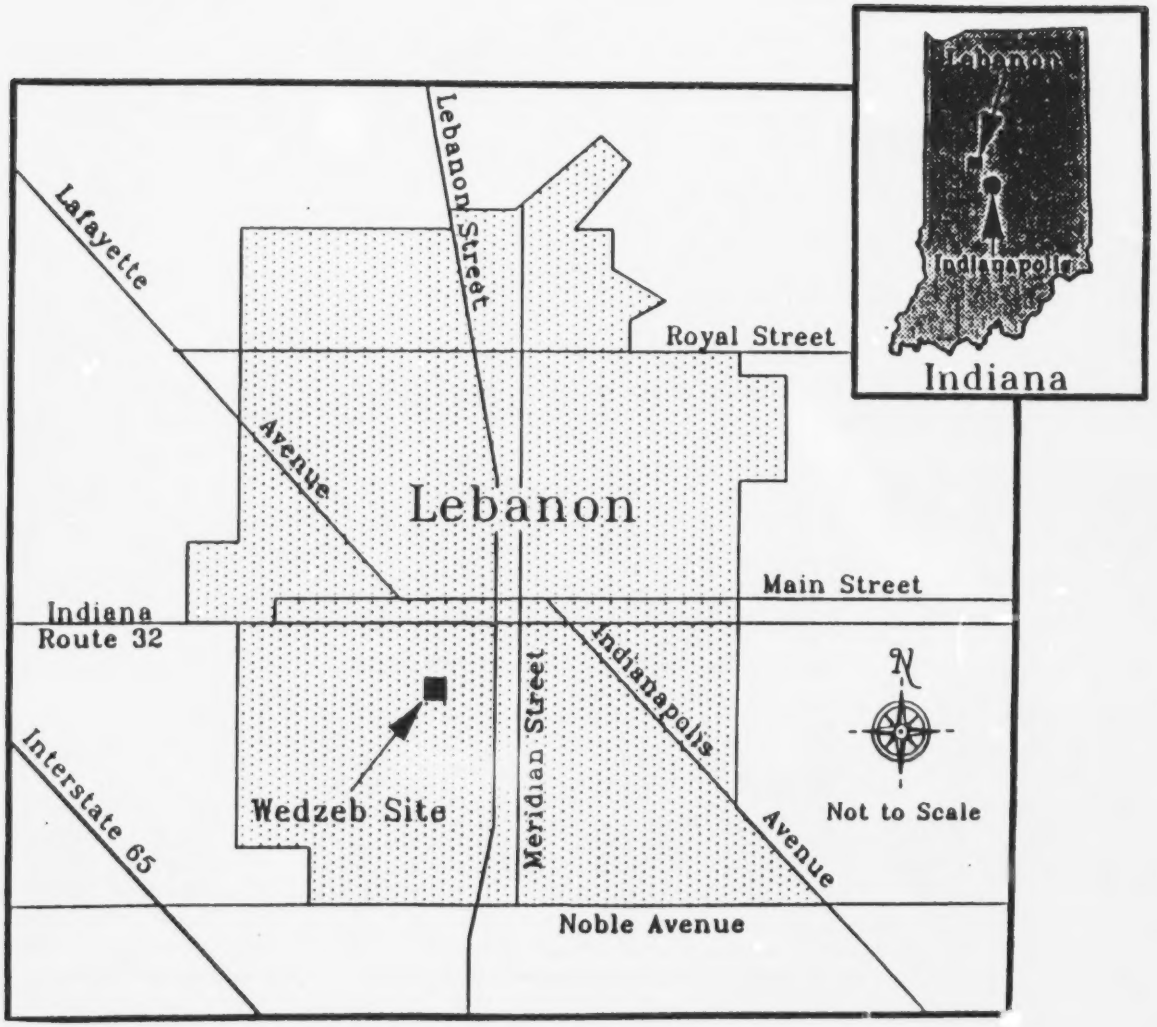

Figure 1 - Site Location Map

4.a

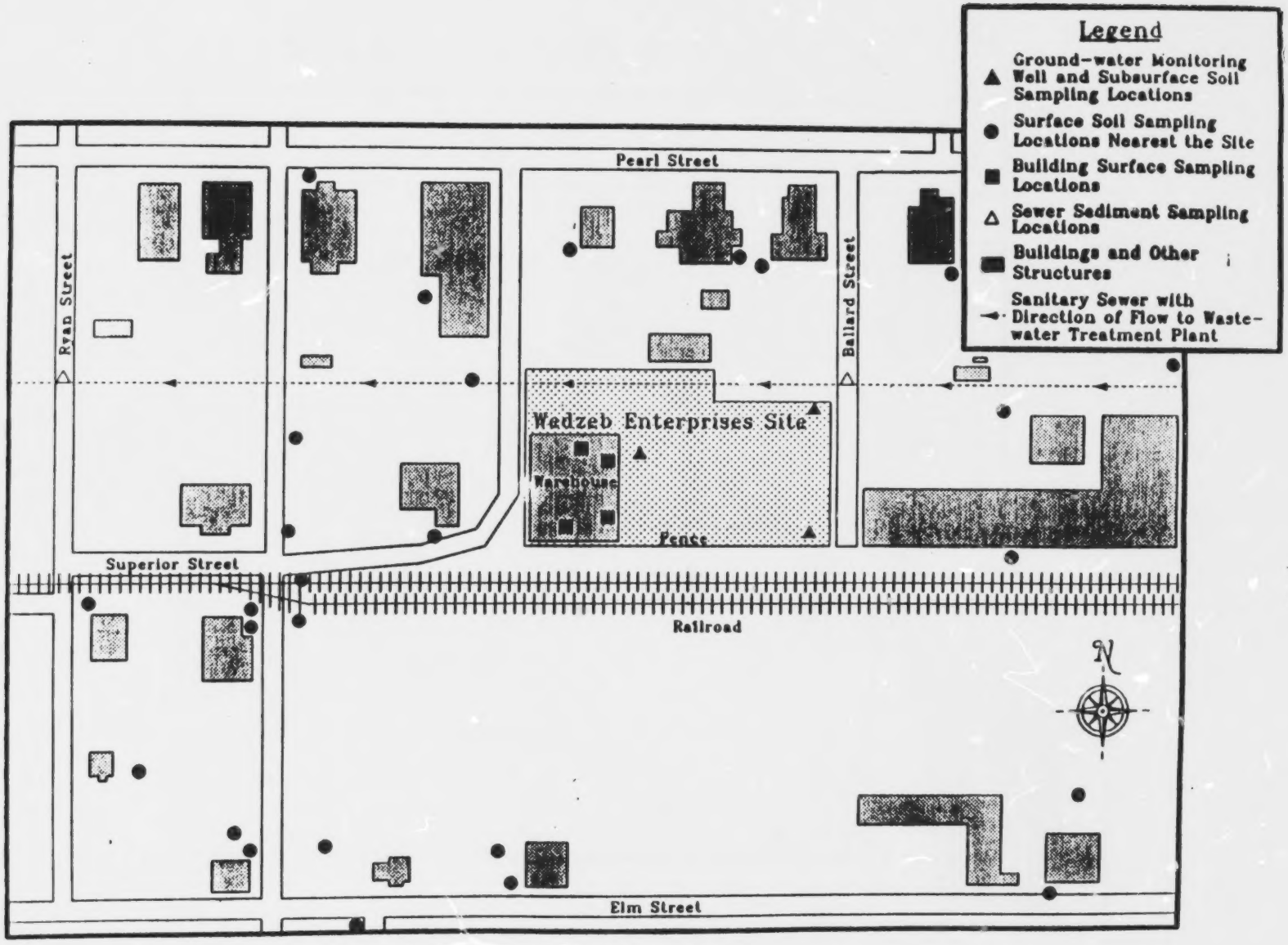

Figure 2
Site Detail Map with Sampling Locations

4.6

B. Enforcement Activities

The owner/operator has been identified as a potentially responsible party (PRP) for the Wedzeb Enterprises site. In addition U.S. EPA is currently evaluating the PRP status of the PCB oil filled capacitor and transformer generators.

On May 30, 1989, Special Notice Letter pursuant to Section 122(a) of the Superfund Amendment and Reauthorization Act (SARA) of 1986 was sent to the owner/operator. Settlement procedures under Section 122(a) of SARA were not involved because U.S. EPA determined that negotiations would not be cost-effective given the inexpensive and straightforward nature of the remedy. U.S. EPA will pursue cost recovery at a later date.

III. COMMUNITY RELATIONS HISTORY

Originally, citizens and local officials expressed concerns regarding: schedule for cleanup; site appearance, potential health threats from PCBs; site access and property values. The response actions that have taken place to date have addressed many of these original concerns.

U.S. EPA published the Proposed Plan in accordance with CERCLA Section 117. This document was made available to the public on May 22, 1989, at the beginning of the 30 day public comment period. A public meeting was held on June 1, 1989. Thirteen people attended the public meeting and expressed an interest in the technical aspects and the timeframe within which the actual sewer cleaning would take place. In addition, members of the public were also interested in who would pay for the cleanup. At this time U.S. EPA will pay for the cleanup; however, as discussed in Section II(B) of this Record of Decision (ROD), U.S. EPA intends to pursue cost recovery against all potentially resonsible parties. After a question and answer period, formal comments were requested. No formal comments were received at this public meeting. In addition, no formal written comments were received by U.S. EPA regarding the Wedzeb Enterprises site remedy.

IV. SCOPE AND ROLE OF THE RESPONSE ACTION

In April 1987, a removal response action was conducted at this site. Removal activities included removal of the razed warehouse debris and contaminated soil. The contaminated material was replaced with clean fill and the removal was completed on September 30, 1987.

This ROD addresses contaminated sediments in the sanitary sewer line between Ballard and Ryan Streets in Lebanon, Indiana. This area is a principal threat to human health and the environment because of the possibility of contaminants migrating to the POTW. This response is a cautionary measure against potential future releases from the contaminated sewer line to the Lebanon POTW. This is the second and final response action for this site.

V. SITE CHARACTERISTICS

The RI was conducted to determine the presence and extent of any remaining contamination on and near the site. Field activities, conducted by the U.S. EPA, took place between October 1987 and January 1989. During that time, three groundwater wells were installed. Results of the geologic investigations indicated the existence of seven distinct stratigraphic units in the area. The upper most glacial outwash deposit is a water bearing unit. Based on data available it could not be determined if this deposit is confined or unconfined. Groundwater elevations show that the flow directions for this aquifer is towards the northwest.

In addition, laboratory analyses were conducted on groundwater samples, residential surface soils, on-site subsurface soil, dust samples from interior and exterior walls of the warehouse, and sewer sediment samples (Figure 2). Samples were analyzed for PCBs, Polychlorinated dibenzodioxin (PCDD), polychlorinated dibenzofuran (PCDF), and a wide variety of other organic substances. Results of these analyses are presented in Tables 2 through 5.

Since PCDD and PCDF are present at the site, a discussion on these compounds is warranted. The actual laboratory results for PCDD and PCDF are not presented in Tables 2, 3, 4, or 5. Instead, toxicity equivalence values (TEVs) are presented for PCDD and PCDF, in order to be consistent with the risk assessment calculations and the Centers for Disease Control's recommended action level for PCDD and PCDF which are based on TEVs. TEVs are used because PCDDs and PCDFs comprise a family of 75 and 135, respectively, related organic compounds (congeners) that contain between one and eight chlorine atoms. Within each family (congener) there are:

- Isomers - members of the family which possess the same number of chlorine atoms but with different arrangements; and

- Homologues - groups of isomers with the same number of chlorine atoms.

A representation of the chemical structures is presented in Figure 3.

PCDD and PCDF congeners with 4 to 7 chlorine substitutions are often divided into two subclasses, comprising those congeners with and without chlorine substitutions in the 2,3,7 and 8 positions. With the exception of octachlorodibenzodioxin (OCDD), congeners with this pattern are recognized as being more toxic and bioaccumulatable than other congeners. Therefore, these congeners if present, would produce higher risk to human health and the environment. Most information in the literature with respect to environmental fate and transport of PCDDs/PCDFs pertains to the 2,3,7,8-TCDD congener, since it is this species that is considered to be most biologically active. Limited information is available on the

other dioxin congeners, and chemical properties are for the most part estimated.

Procedures used to calculate a 2,3,7,8-TCDD Toxicity Equivalent Value (TEV) associated with reported concentrations of PCDD and PCDF congeners involved the use of Toxicity Equivalence Factors (TEFs) (Figure 3). In cases where the concentration was reported as non-detected, one-half the detection limit was used as the analytical sample concentration to calculate the TEV. When the analytical results for a congener did not distinguish between isomers with 2,3,7,8 substitutions and others, two Toxicity Equivalent Concentrations were calculated for that congener and therefore, two Toxicity Equivalent Values were calculated. One assumes that no 2,3,7,8-isomers were present, and the other assumes that only 2,3,7,8-isomers were presented. The actual concentration (in equivalencies) may lie somewhere between these two toxicity equivalent values.

Results of soil, groundwater, structural surfaces and sewer sediment sampling are shown in Tables 2 through 5.

VI. SUMMARY OF SITE RISKS

A Public Health and Environmental Risk Assessment was conducted to assess the potential impacts to human health or the environment of residual contamination in soils at the site and in nearby residential areas, contaminants in site groundwater, sewer sediments, and on the remaining warehouse surfaces.

Chemicals of potential concern for each medium sampled were identified based on their relation to operations at the site and detection in sufficient frequency and magnitude over background. PCDDs and PCDFs were identified as contaminants of potential concern for the surface soils. PCBs, PCDDs, PCDFs, tetrachloroethane, trichloroethene, ethylbenzene, and xylene were identified as chemicals of potential concern in subsurface soils. PCDDs and PCDFs were detected at low levels in groundwater and were selected as chemicals of potential concern in groundwater. PCBs were detected on surfaces in the existing warehouse at the site and were selected for evaluation. Sediment samples taken from the sanitary sewer showed contamination with PCBs and PCDDs/PCDFs which were all assumed to be site-related contaminants and, therefore, contaminants of concern.

Potential pathways by which human populations could be exposed to chemicals of potential concern under current or hypothetical land-use conditions were identified and selected for evaluation. Under current land use conditions, exposure of residents to soils in their yards were evaluated as well as exposure of workers frequenting the warehouse at the site. Under future land use conditions, it was assumed that groundwater at the site could be used for drinking and that exposure to contaminants in subsurface soils might occur at the site during activities such as constructing a building. Exposures were evaluated under both average and plausible maximum exposure scenarios to obtain a range of possible exposures. It should be noted that the exposures assumed under the

TABLE 2
SUBSURFACE SOIL SAMPLING DATA
WEDZEB ENTERPRISES SITE

SAMPLE NO.	DEPTH (feet)	PCB (ug/g)	Pesticides (ug/kg)	Volatile Organics (ug/kg)	TCDD EQUIVALENCE VALUE (ug/kg) non-2,3,7,8	TCDD EQUIVALENCE VALUE (ug/kg) 2,3,7,8
WZ-SU01-01	02.0-04.0	0.59	210 B-BHC	ND	5.06E-06	2.39E-04
WZ-SU01-02	04.0-06.0	0.54	17 B-BHC	ND	ND	ND
WZ-SU01-03	06.0-08.0	NA	ND	NA	NA	NA
WZ-SU01-06	28.0-30.0	ND	ND	7 TCE, 5 PCE	ND	ND
WZ-SU02-01	05.5-07.5	ND	ND	ND	ND	ND
WZ-SU02-02	07.5-09.5	ND	ND	4 TCE, 6 PCE	7.60E-03	7.60E-03
WZ-SU02-03	10.0-12.0	NA	ND	NA	ND	ND
WZ-SU02-06	26.0-28.0	ND	ND	1 Xylene	5.25E-07	3.99E-06
WZ-SU03-01	10.5-12.5	ND	ND	ND	*	*
WZ-SU03-02	13.0-15.0	ND	ND	3 EB, 12 Xylene	*	*
WZ-SU03-03	15.0-17.0	NA	ND	NA	NA	NA
WZ-SU03-06	28.0-30.0	ND	ND	5 EB, 12 Xylene	ND	ND

NA: Not applicable.
ND: Not detected.
B-BHC: Beta-hexachlorocyclohexane
EB: Ethyl benzene
PCE: Tetrachloroethylene
TCE: Trichloroethylene
Note: TCDD Equivalence Values are calculated from dioxin and furan concentrations using Toxicity Equivalence Factors.

*: Octa dioxins and/or furans were present; however, the TCDD Equivalent Value was essentially zero due to the use of zero as the Toxicity Equivalence Factor for OCDD and OCDF.

7.C

TABLE 3
GROUNDWATER SAMPLING DATA
WEDZEB ENTERPRISES SITE

SAMPLE NO.	PCB (ug/g)	TCDD EQUIVALENCE VALUE (ppb)
1 - Total	ND	4.63E-08
1 - Filtered	ND	4.60E-10 UJ
2 - Total	ND	1.60E-08 UJ
2 - Filtered	ND	*
3 - Total	ND	1.74E-08 UJ
3 - Filtered	ND	1.36E-05

ND: Not Detected.
UJ: Sample value was <5X greater than the value detected in the blank. Detection limit is considered to be the value of the positive result in the blank.
*: Octa dioxins and/or furans were present; however, the TCDD Equivalent Value was essentially zero due to the use of zero as the Toxicity Equivalence Factor for OCDD and OCDF.
Note: TCDD Equivalence Values are calculated from dioxin and furan concentrations using Toxicity Equivalence Factors.

TABLE 4
STRUCTURES SAMPLING DATA
WEDZEB ENTERPRISES SITE

(A): STRUCTURAL SURFACE

SAMPLE NO.	LOCATION	PCB ($ug/100cm^2$)	TCDD EQUIVALENCE VALUE (ug/kg)
WIPE			
07	East Exterior Wall	ND	ND
08	East Exterior Wall	ND	ND
09	Interior Wall	1.3J	ND
10	Interior Rafter	0.6J	*

(B): SANITARY SEWER

SAMPLE NO.	LOCATION	PCB (mg/kg)	Pesticides (ug/kg)	TCDD Equivalence Value (ug/kg)	
SEDIMENT					
14	Downstream	0.92	95J Dieldrin	1.95E-04	J
15	Upstream	370	ND	5.33E-02	J
WIPE					
14	Downstream			ND	
15	Upstream			ND	

NA: Not applicable.
ND: Not detected.
J: Estimated Value.
NOTE: TCDD Equivalence Values are calculated from dioxin and furan concentrations using Toxicity Equivalence Factors.

*: Octa dioxins and/or furnas were present; however, the TCDD Equivalent Value was essentially zero due to the use of zero as the Toxicity Equivalence Factor for OCDD and OCDF.

TABLE
SURFACE SOIL SAMPLING DATA
-- HEDZED ENTERPRISES SITE

B & V SAMPLE NO.	DEPTH (feet)	PCB (ug/g)	Pesticide (ug/kg)	TCDD EQUIVALENCE VALUE(ppb) non-2,3,7,8		2,3,7,8
19	00.0-00.5	ND	190J Chlordane	2.50E-04		8.70E-03
	00.5-01.0	ND	1100J Chlordane	8.85E-05		8.10E-03
20	00.0-00.5	ND	ND	6.31E-05		4.92E-03
	00.5-01.0	ND	ND	2.10E-05		1.00E-03
21	00.0-00.5	ND	48J DDE	3.03E-04		1.17E-02
	00.5-01.0	ND	90J DDE	9.44E-06		4.59E-04
22	00.0-00.5	ND	ND	4.29E-04		3.19E-03
	00.5-01.0	ND	ND	1.19E-03		1.36E-02
23	00.0-00.5	ND	ND	8.34E-05		4.71E-03
	00.5-01.0	ND	ND	3.82E-04		9.44E-03
24	00.0-00.5	ND	ND	1.46E-04		7.17E-03
	00.5-01.0	ND	ND	2.58E-05		1.49E-03
25	00.0-00.5	ND	ND	2.49E-06	J	2.49E-04
	00.5-01.0	ND	ND	3.95E-06	J	3.95E-04
26	00.0-00.5	ND	87 DDE, 170 DDT	1.22E-05	J	1.22E-03
	00.5-01.0	ND	51 DDE, 81 DDT	2.25E-05	J	9.63E-04
27	00.0-00.5	ND	8.2J DDE	6.76E-06	J	6.76E-04
	00.5-01.0	ND	230J DDE	5.20E-06	J	5.20E-04
28	00.0-00.5	ND	ND	*	J	*
	00.5-01.0	ND	ND	1.21E-06	J	1.21E-04
29	00.0-00.5	ND	ND	1.85E-04		1.84E-02
	00.5-01.0	ND	ND	1.36E-04		1.36E-02
30	00.0-00.5	ND	ND	1.76E-05	J	1.76E-03
	00.5-01.0	ND	580 DDE,320 DDT	*	J	*
31	00.0-00.5	ND	140 DDT	2.44E-04	J	2.44E-02
	00.5-01.0	ND	14,000 Dieldrin	5.59E-04	J	5.59E-03
32	00.0-00.5	ND	3,100 Dieldrin	6.82E-04	J	6.82E-02
	00.5-01.0	ND	320 Dieldrin	2.22E-04	J	2.22E-02
33	00.0-00.5	ND	200 Dieldrin	6.14E-05	J	6.14E-03
	00.5-01.0	ND	420 Dieldrin	2.43E-06	J	2.43E-04
34	00.0-00.5	ND	630J Dieldrin	4.46E-05	J	4.46E-03
	00.5-01.0	ND	390J Dieldrin	7.10E-06	J	7.10E-04
35	00.0-00.5	ND	290J Dieldrin	2.78E-05	J	2.78E-03
	00.5-01.0	ND	750J Dieldrin	2.13E-06	J	2.13E-04
36	00.0-00.5	ND	100J Dieldrin	1.92E-05	J	1.92E-03
	00.5-01.0	ND	ND	2.52E-05	J	2.52E-03
37	00.0-00.5	ND	ND	7.06E-06		7.06E-04
	00.5-01.0	ND	ND	6.20E-06	J	6.20E-04
38	00.0-00.5	ND	ND	4.30E-06		4.30E-04
	00.5-01.0	ND	ND	*		*
40	00.0-00.5	ND	ND	3.74E-05	J	3.74E-03
	00.5-01.0	ND	ND	4.77E-06	J	4.77E-04
41	00.0-00.5	ND	350J Chlordane	9.40E-06	J	9.40E-04
	00.5-01.0	ND	150 Chlordane	2.00E-06	J	2.00E-04
42	00.0-00.5	ND	120000 Chlordane	1.96E-05	J	1.96E-03
	00.5-01.0	ND	89000 Chlordane	7.80E-06	J	7.80E-04
43	00.0-00.5	ND	ND	8.70E-05	J	8.70E-03
	00.5-01.0	ND	ND	9.64E-05	J	9.64E-03
44	00.0-00.5	ND	ND	2.62E-03		2.63E-01
	00.5-01.0	ND	ND	1.07E-02	J	3.20E-01
46	00.0-00.5	ND	ND	3.22E-04		3.22E-02
	00.5-01.0	ND	ND	5.35E-04		5.35E-02
47	00.0-00.5	ND	ND	1.77E-05	J	1.77E-03
	00.5-01.0	ND	ND	4.44E-05	J	4.44E-03
48	00.0-00.5	ND	ND	ND		ND
	00.5-01.0	ND	ND	ND		ND
50	00.0-00.5	ND	ND	1.30E-07	J	1.30E-05
	00.5-01.0	ND	ND	ND	J	ND

NA: Not applicable; ND: Not detected; J:Estimated value
DDE:dichlorodiphenyldichloroethylene
DDE:dichlorodiphenyltrichloroethane
Note: TCDD Equivalence Values are calculated from dioxin and furan concentrations using Toxicity Equivalence Factors.

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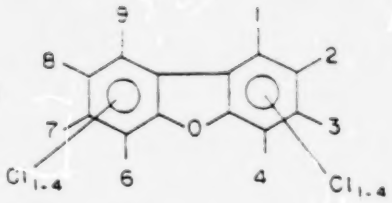
*: Octa dioxins and/or furans were present; however, the TCDD Equivalent Value was essentially zero due to the use of zero as the Toxicity Equivalence Factor for OCDD and OCDF

PCDFs

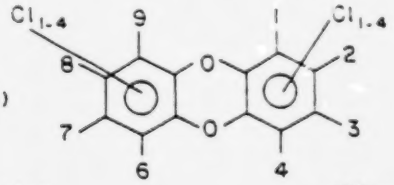
135 congeners(a)



Lateral ring positions are 2,3,7 and 8

PCDDs

75 congeners(a)



Homologue(a)	Abbreviation	Number of(a) Isomers
Monochlorinated dibenzofuran	M_1^1CDF	4
Dichlorinated dibenzofuran	D_2^1CDF	16
Trichlorinated dibenzofuran	T_3^1CDF	28
Tetrachlorinated dibenzofuran	T_4^1CDF	38
Pentachlorinated dibenzofuran	P_5^1CDF	28
Hexachlorinated dibenzofuran	H_6^1CDF	16
Heptachlorinated dibenzofuran	H_7^1CDF	4
Octachlorinated dibenzofuran	O_8^1CDF	1
Monochlorinated dibenzo-p-dioxin	M_1^1CDD	2
Dichlorinated dibenzo-p-dioxin	D_2^1CDD	10
Trichlorinated dibenzo-p-dioxin	T_3^1CDD	14
Tetrachlorinated dibenzo-p-dioxin	T_4^1CDD	22
Pentachlorinated dibenzo-p-dioxin	P_5^1CDD	14
Hexachlorinated dibenzo-p-dioxin	H_6^1CDD	10
Heptachlorinated dibenzo-p-dioxin	H_7^1CDD	2
Octachlorinated dibenzo-p-dioxin	O_8^1CDD	1

(a)Congener denotes any isomer of any homologue. Homologue defines a group of isomers with the same number of chlorine atoms. An isomer is defined by the arrangement of chlorine atoms within the homologue.

PCDD/PCDF Congener	Toxicity Equivalence Factor	
	non-2,3,7,8 isomers	2,3,7,8 isomers
TCDD	0.01	1
PCDD	0.005	0.5
HCDD	0.0004	0.04
H7CDD	0.00001	0.001
OCDD	0	0
TCDF	0.001	0.1
PCDF	0.001	0.1
HCDF	0.0001	0.01
H7CDF	0.00001	0.001
OCDF	0	0

Figure 3 - Numbering, Nomenclature and Toxicity Equivalence Factors for PCDF and PCDD Congeners

plausible maximum case are likely to apply to few members of the population.

The assumptions used for estimating exposure under the current use scenario for Workers and Residential are provided in Tables 6 and 7, respectively. The future use scenario Residential and Worker exposure assumptions are presented in Tables 8 and 9, respectively. In addition, Table 10 outlines chemical specific toxicity information utilized in the risk assessment calculations.

The major results of the public health evaluation for the Wedzeb Enterprises site for the exposure scenarios discussed are shown in Table 11 and summarized below. The excess cancer risks calculated are primarily due to the presence of PCDDs/PCDFs. Since the risk data available is for TCDD and TCDF, dioxin equivalents were calculated which convert the concentrations of the more chlorinated dioxin and furans to the tetrachloroform. It should be noted that when calculating the tetrachloro-dioxin and furan equivalents, an assumption had to be made regarding the position of the chlorine atoms. No analyses were made to determine the concentration of the 2,3,7,8 form of the penta-through oct-dioxin and furans. Two scenarios were calculated: a maximum where it was assumed all dioxin and furans were in the 2,3,7,8 form, and a minimum where it was assumed that none of the dioxin and furans were in the 2,3,7,8 form. This provides an upper and lower bound of the possible risks due to exposure to PCDDs and PCDFs found at the site. It is highly unlikely that all the dioxin and furans are in the 2,3,7,8 form. The true risks lie therefore, closer to the average case (i.e., the middle of the risk range).

The findings of the RI and the Public Health Evaluation (PHE) are summarized below for each media.

GROUNDWATER

There were no PCBs in the groundwater, and very low levels of dioxins and furans. There are no specific drinking water standards for these compounds. In addition, the PHE found that risk due to hypothetical exposure to groundwater fell within the risk range of 10^{-4} to 10^{-7} which the U.S. EPA considers protective of human health and the environment.

SURFACE AND SUBSURFACE SOIL

No PCBs were detected in any surface soil samples. Dioxin and furan TEVs were found at very low levels, well below the Agency's generally accepted cleanup level of 1 ppb. In subsurface soil samples, low levels of PCBs, dioxins, furan, and other organic compounds were detected. However, the levels detected in the samples were also found to be below the state and federal standards that apply to these compounds. The PHE also found that risk due to exposure to these contaminated soils fell within the risk range of 10^{-4} to 10^{-7} which the Agency considers protective of human health and the environment with one exception. The "ingestion of homegrown produce" scenario generated an extreme worse-case risk of

TABLE 6: CURRENT USE SCENARIO FOR WORKERS

ASSUMPTIONS FOR ESTIMATING WORKER EXPOSURE VIA DERMAL ABSORPTION OF DUST IN EAST WAREHOUSE

Parameter	Value
Frequency of Exposure	50 days/year
Duration of Exposure	20 years
Average Body Weight	70 kg
Dermal Absorption Factor	7%
Dermal Contact Area	200 cm^2
Lifetime	70 years

TABLE 7: CURRENT USE SCENARIO FOR RESIDENTIAL

EXPOSURE PARAMETERS USED TO CALCULATE INTAKES ASSOCIATED WITH INHALATION OF CONTAMINATED AIRBORNE DUST NEAR SITE

Parameter	Value
Breathing rate	20 m^3/day
Inhalation Retention Factor	75%
Frequency of Exposure	365 days/year
Duration of Exposure	70 years
Body Weight	70 kg
Lifetime	70 years

TABLE 8: FUTURE USE SCENARIO FOR RESIDENTIAL

ASSUMPTIONS FOR ESTIMATING THE RISKS ASSOCIATED WITH FUTURE INGESTION OF CONTAMINATED GROUNDWATER

Parameter	Average Exposure	Maximum Exposure
Years of Ingestion	30	70
Water Ingestion Rate (l/day)	2	2
Average Body Weight (kg)	70	70
Lifetime (years)	70	70

TABLE 9: FUTURE USE SCENARIO FOR WORKERS

ASSUMPTIONS FOR ESTIMATING THE SHORT-TERM RISKS ASSOCIATED WITH DERMAL CONTACT AND INCIDENTIAL INGESTION OF ONSITE SUBSURFACE SOIL

Parameter	Average Exposure	Maximum Exposure
Frequency of Exposure	60 days/year	60 days/year
Duration of Exposure	1 year	1 year
Body Weight	70 kg	70 kg
Incidental Ingestion Rate	25 mg/day	100 mg/day
Ingestion Absorption Factor		
PCBs & PCDDs/PCDFs	15%	50%
Volatile Organics	100%	100%
Dermal Contact Rate	990 mg/day	2970 mg/day
Dermal Absorption Factor		
PCBs	7%	7%
PCDDs/PCDFs	0.3%	3%
Volatile Organics(a)	4%	4%
Lifetime	70 years	70 years

a Based on Feldman and Maibach (1974).

TABLE 7: CURRENT USE SCENARIO FOR RESIDENTIAL CONTINUED

ASSUMPTIONS FOR ESTIMATING AVERAGE DAILY INTAKE VIA DERMAL CONTACT AND INCIDENTAL INGESTION OF SOIL AT RESIDENCES SURROUNDING THE SITE

Parameter	Average Exposure	Maximum Exposure
Frequency of Exposure(a)	64 days/year	160 days/year
Duration of Exposure	30 years	70 years
Average Body Weight(b)	70 kg	70 kg
Incidental Ingestion Rate(c)	54 mg/day	145 mg/day
Ingestion Absorption Factor	15%	50%
Dermal Contact Rate(d)	670 mg/day	5400 mg/day
Dermal Absorption Factor		
- PCBs(e)	7%	7%
- PCDD/PCDFs(f)	0.3%	3%
Lifetime(b)	70 years	70 years

a Based on climatological data for Indianapolis, Indiana (NOAA 1979).
b EPA (1985b).
c Based on Lagoy (1987).
d Based on Schaum (1984) and EPA (1985b); weighted average over age periods.
e Based on the work of Wester et al. (1987).
f Based on Poiger and Schlatter (1980).

ASSUMPTIONS FOR ESTIMATING AVERAGE DAILY INTAKE VIA INGESTION OF HOMEGROWN VEGETABLES AT RESIDENCES

Parameter	Average Exposure	Maximum Exposure
Soil-Root Crop Uptake Factor(a)	0.0037	0.0246
Root Crop Ingestion Rate(b)	0.368 kg/day	0.582 kg/day
Frequency of Exposure(c)	15 days/year	30 days/year
Duration of Exposure(c)	30 years	70 years
Body Weight(d)	70 kg	70 kg
Lifetime(d)	70 years	70 years

a Based on Briggs et al. (1982). b Based on USDA (1982).

TABLE 10
HEALTH EFFECTS CRITERIA FOR EXPOSURE TO
CHEMICALS OF CONCERN

Chemical	Reference Dose (RfD) (mg/kg/day) Oral	Reference Dose (RfD) (mg/kg/day) Inhalation	EPA/CAG Cancer Potency Factor $(mg/kg/day)^{-1}$ Oral	EPA/CAG Cancer Potency Factor $(mg/kg/day)^{-1}$ Inhalation	Weight of Evidence(a)
PCBs	--	--	7.7 (b)	--	B2
PCDDs/PCDFs	$1x10^{-9}$ (c)	--	$1.56x10^{5}$	$1.56x10^{5}$	B2
Tetrachloroethylene	$1x10^{-2}$ (d)	--	$5.1x10^{-2}$(e)	$3.3x10^{-3}$(d)	B2
Trichloroethylene	--	--	$1.1x10^{-2}$	$1.3x10^{-2}$	B2

a Weight of evidence classification scheme for carcinogens:

A--Human Carcinogen, sufficient evidence from human epidemiological studies; B1--Probable Human Carcinogen, limited evidence from epidemiological studies and adequate evidence from animal studies; B2--Probable Human Carcinogen, inadequate evidence from epidemiological studies and adequate evidence from animal studies; C--Possible Human Carcinogen, limited evidence in animals in the absence of human data; D--Not Classified as to human carcinogenicity; and E--Evidence of Noncarcinogenicity.

b Source: John Barney memo re: CAG potency factor for PCBs
c Source: Health Advisory (EPA 1987b)
d Source: IRIS (EPA 1988b)
e Source: Superfund Public Health Evaluation Manual EPA (1986a)

TABLE 11

SUMMARY OF EXPOSURE SCENARIOS AND CORRESPONDING RISKS

	Average Case (a)		Maximum Case (a)	
Current Use Scenarios:	Minimum	Maximum	Minimum	Maximum
Residential				
Dermal Contact and Incidental Ingestion of Surface Soil	4×10^{-13}	3×10^{-8}	5×10^{-9}	1×10^{-4}
Inhalation of Airborne Dust*	2×10^{-13}	2×10^{-8}	2×10^{-11}	6×10^{-7}
Ingestion of Homegrown Produce	1×10^{-11}	1×10^{-6}	6×10^{-8}	2×10^{-3}
Workers				
Dermal Contact and Incidental Ingestion of Warehouse Dust	NC	NC	4×10^{-5}	8×10^{-5}
Future Use Scenarios:				
Residential				
Ingestion of Onsite Groundwater	NC	NC	3×10^{-7}	1×10^{-4}
Worker				
Short-term Contact and Incidental Ingestion of Subsurface Soil During Onsite Construction Activities	5×10^{-10}	2×10^{-8}	1×10^{-8}	8×10^{-8}

NC = Not calculated

* As discussed in the text, only one set of exposure assumptions are analyzed for inhalation of airborne dust; here the only difference between values presented under "average case" and "maximum case" is the use of non-2,3,7,8 TEVs (minimum and maximum presented under "average case" heading) or 2,3,7,8-TEVs (minimum and maximum presented under "maximum case" heading).

(a) The average case refers to the use of non-2,3,7,8-TEVs; the maximum case heading refers to the use of 2,3,7,8-TEVs.

$2x10^{-3}$. However, as the above discussion on risk calculation assumptions pointed out, the true risk for this scenario would fall in between the risk range of $1x10^{-11}$ and $2x10^{-3}$. Therefore, given that contamination is below U.S. EPA's cleanup level and the risk levels are expected to be less than $1x10^{-4}$, U.S. EPA considers the soils to be protective of human health and the environment.

WAREHOUSE SURFACES

No dioxins, furans, or other organic compounds were detected on the warehouse surfaces. PCBs were found only in the interior warehouse surface samples. Potential exposure to PCBs found on the warehouse surfaces would be protective of human health and the environment.

SANITARY SEWER SEDIMENTS

The levels of PCBs, dioxins, and furans found in the sanitary sewer sediments are of concern to U.S. EPA because the sanitary sewer system leads to the municipal wastewater treatment plant, where sludge is produced and available for agricultural use. It should be noted that although sludge from the Lebanon Treatment Plant was found to be contaminated immediately after the fire in 1981, subsequent analyses of the sludge did not detect any contamination.

A PHE was not performed for potential exposure to contaminated sewer sediments. In addition, there are no specific state or federal standards for PCBs, dioxins, or furans found in sewer sediments. However, as a cautionary measure against potential future releases from the contaminated sewer line to the Lebanon Treatment Plant, remediation of the contaminated sewer line is recommended.

VII. DESCRIPTION OF ALTERNATIVES

GROUNDWATER, SOILS, AND WAREHOUSE SURFACES

The findings of the RI show that the previous removal actions were adequate to protect human health and the environment, and that no unacceptable risk remains at the site for these media. Therefore, no further action will be taken at the Wedzeb site for the groundwater, soils and warehouse surfaces.

The selection of the no further action alternative is based on the following statutory requirements, as required in CERCLA:

1. Overall protection of human health and the environment: U.S. EPA and IDEM concur with the assessment that the groundwater, soils, and warehouse surface associated with the site pose no unacceptable risks to human health and the environment.

2. Compliance with Applicable,or Relevant and Appropriate, State and Federal Requirements (ARARs): No Federal or State environmental standards are exceeded at the site.

3. The other evaluation criteria, cost effectiveness and utilization of permanent solutions and alternative treatment technologies, are not applicable to the no further action alternative.

SANITARY SEWER SEDIMENTS

Based on the results of the RI, U.S. EPA conducted a study to identify remedial action alternatives to address the contaminated sewer sediments associated with the site. This study resulted in a Technical Memorandum which identified the cleanup objective for the site:

- Prevent contaminants present in the sanitary sewer sediments from migrating to the public owned treatment works (POTW).

The following four remedial action alternatives which meet the cleanup objective were considered for remedial action at the site: All costs are capital cost since no operation and maintenance will be necessary for any of the Alternatives.

Alternative 1: NO ACTION

Capital Cost: $11,000

Under the "No Action" alternative U.S. EPA would take no further action to reduce contamination levels in the sanitary sewer system. The potential for migration of PCB contaminated sewer sediments to the Lebanon treatment plant would continue to exist. The alternative would not reduce risk to human health and the environment. The no action alternative is always evaluated as a baseline for comparison with other alternatives. Also included in this alternative are provisions for disposal of the wastes which were generated during RI field work. Although no funds would be expended for no action on the sewer sediments, disposal of RI generated waste will cost $11,000.

Alternative 2: PIPE CLEANING AND INSPECTION

Capital Cost: $24,500

This alternative involves cleaning 600 feet of the Sanitary Sewer pipeline by hydraulic jetting of the sewer line to scour contaminated sediments from the pipe walls followed by vacuum pumping to remove water and sediments from the sewer line. The water and sediments collected during the cleaning process will be filtered and analyzed for PCBs prior to disposal. If analysis of the water collected during the cleaning process indicates that PCB levels are below the local limits the water would be discharged to the sanitary sewer system. Any water shown to contain elevated levels of contamination would undergo a filtering treatment to remove contamination before being discharged to the sanitary

sewer. The filtered sediment would be disposed of along with the RI generated wastes, at an offsite EPA approved landfill or incineration facility. Once the pipeline has been cleaned, a television inspection will be conducted. The television inspection will provide data on the structural integrity of the sewer pipeline and establish if the pipe cleaning was successful.

There are no specific state or federal requirements (ARARs) for PCBs, dioxins,or furans found in sewer sediments. However, a policy to be considered for PCBs in sewer sediments is the TSCA PCB Spill Policy (40 CFR Part 761.120) established by EPA in April 1987. The spill policy established health based requirements for the cleanup of PCB spills of materials containing 50 ppm or greater. The TSCA policy specifically excludes existing sites and spills directly to surface water, drinking water sewers, grazing lands,or vegetable gardens, and recommends site-specific determinations for these areas.

This alternative eliminates the existing potential for PCB contaminated sewer sediments to migrate to the Lebanon Treatment Plant. This alternative would be protective of public health and environment, by removing the contaminated sediment and meeting the TSCA spill policy guidance cleanup level of 10 ppm or less of PCBs. If all of the sediment is successfully removed from the sewer line, PCB levels are expected to be well below 10 ppm, and possibly nondetectable. The total cost for the alternative would be $24,500 (including disposal of RI generated wastes).

Alternative 3: PIPE CLEANING, INSPECTION AND SEWER REHABILITATION

Capital Cost: $68,800

This Alternative provides all of the components of Alternative 2. In addition, if the television inspection indicates that sediments were not removed during hydraulic jetting, slip-lining of the sewer pipe may be implemented. Sewer line rehabilitation will not occur solely for normal maintenance problems. The total cost of Alternative 3 is $68,800 (including disposal of RI generated waste).

Alterative 4: PIPE CLEANING, INSPECTION, AND PIPELINE REPLACEMENT

Capital Cost: $99,400

This alternative includes all the components of Remedial Alternative 2, with the addition of sewer pipeline replacement. If during the television inspection of the sanitary sewer pipeline, U.S. EPA determines that the condition of the pipeline is poor, and would allow contaminants to migrate into the soil and groundwater, the affected portions of the pipeline would be replaced. This would not occur solely for normal maintenance problems identified in the sewer system pipeline. The total costs of Alternative 4 is $99,400 (including disposal of RI generated waste).

VIII. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

The nine criteria used for evaluating the remedial alternatives listed above include: overall protection of human health and the environment; compliance with ARARs; long-term effectiveness; reduction of toxicity, mobility, or volume; short-term effectiveness; implementability; costs; and State of Indiana and Community of Lebanon acceptance. Based on these nine criteria, and Agencies believe that the preferred alternative for remedial action at the Wedzeb Enterprises Site is Alternative 2-Pipe cleaning and inspection. The evaluation of the alternatives against the nine criteria are provided below:

Overall Protection of Human Health and the Environment

Alternative 2 would provide overall protection of human health and the environment through removal and disposal of PCB contaminated sewer sediments. This action would eliminate the potential for migration of contaminated sediments to the Lebanon Treatment Plant sludge. These sludges are typically spread on agricultural lands.

Alternative 3 and 4 are also protective. However, Alternative 1 would not be adequately protective of human health and the environment and is therefore not eligible for selection. As a result alternative 1 will not be evaluated against the remaining criteria.

Compliance with ARARs

No federal or state standards, criteria, or guidelines have been identified for PCBs in sewer sediments. However, the TSCA spill policy provides cleanup values for PCBs which may be considered for sewer sediments. Alternative 2 will provide for the removal of contaminated sewer sediment resulting in residual levels, if any, being below the TSCA Spill Policy guidance levels. Therefore, this alternative will be in compliance with the TSCA Spill Policy. Alternative 3 and 4 will also result in the reduction of contamination below the TSCA Spill Policy Guidance levels. In addition, the sewer cleaning water will be filtered to ensure that PCB levels will be below the local limit (PCB detection limit) of 0.1 ppb prior to it being discharged to the sewer.

Long-term Effectiveness and Permanence

Alternative 2 will provide long-term effectiveness and a high level of permanence by removing contaminated sediments. Residual risk will be minimal to non-existent. The extent of residual risk will be determined during the television inspection. Alternative 3 would provide a higher level of effectiveness and permanence if the television inspection indicated that all the sediments couldn't be removed, thus requiring slip-lining. Alternative 4 would provide a similar level of effectiveness and permanence if the television inspection indicated that the sewer line was in poor conditions causing contaminated sediment to migrated beyond the sewer line into the surrounding soil.

Reduction in Toxicity, Mobility, and Volume

Alternatives 2 and 3 are expected to produce approximately two barrels of contaminated sediment. The pumped water/sediment will be filtered and sampled to ensure the liquid portion is below local POTW limits, thus allowing discharge back to the sanitary sewer system. The PCB contaminated sediment will be disposed at an off-site incinerator, thus ensuring reduction of toxicity, mobility and volume. Alternative 4 would achieve the same level of reduction as Alternative 2 and 3; however it would generate an additional 2000 cubic yards of soil and debris.

Short-term Effectiveness

Alternative 2 would cause no measurable effects to the community during implementation. Respiratory and dermal protection (level C and D) may be required during pipeline cleaning. Temporary set-up of jetting equipment should have minimal environmental impact. In addition to worker protection, Alternative 3 and 4 would also pose the usual hazards associated with trenching and cause some inconvenience to the neighborhood. All alternatives would be completed within 3 to 6 months. Alternative 2 would take significantly less time than Alternatives 3 and 4.

Implementability

None of the Alternatives utilize unusual technologies. All aspects of these Alternatives are proven reliable. The television inspection will provide means to monitor the effectiveness the remedial action. All alternatives require coordination with the State regarding disposal regulations, permits, and sewer remediation requirements. In addition, coordination will be necessary with the local wastewater authorities regarding the establishment of discharge limits and permission to discharge to the POTW. Based on our most recent communications with the Lebanon POTW authorities, discharge of water with undetectable levels of PCBs will be allowed.

Cost

None of the Alternatives require operation and maintenance (O&M) therefore, there are no present worth values.

Alternative 2 has an estimated cost of $24,500, whereas Alternatives 3 and 4 have an estimated cost of $68,800 and $99,400, respectively.

State Acceptance

The Indiana Department of Environmental Management (IDEM) concurs with the selected remedy. IDEM also recognizes their 10% cost share. There are no O&M responsibilities associated with this site.

Community Acceptance

This site has not seen a significant amount of community involvement. Although the citizens and local officials expressed some concern over the implementation of this remedy, their concerns were addressed at the June 1, 1989 public meeting and as a result no formal comments were received on the remedy for the Wedzeb Enterprises site.

IX. THE SELECTED REMEDY

Based upon current knowledge and the comparative analysis of the Alternatives, both U.S. EPA and IDEM have determined that Alternative 2: Sewer pipeline cleaning and inspection, off-site disposal of RI generated waste and offsite disposal/incineration of PCB contaminated sediment is the most appropriate remedy for the Wedzeb Enterprises site in Lebanon, Indiana.

Because the sewer line reportedly is in good condition, it is assumed that sewer rehabilitation (alternative 3) or replacement (alternative 4) will not be necessary. However, if inspection of the sewer line indicates that all of the sediment was not removed, then Alternative 3, sewer rehabilitation, will need to be implemented. Conversely, if the television inspection indicates that the pipeline was in poor condition and has allowed contaminants to migrate beyond the sewerline, then Alternative 4, sewerline replacement, would need to be implemented.

Approximately 600 feet of sanitary sewer pipeline (between Ryan and Ballard Streets, Figure 4) will be hydraulically jetted and vacuum pumped to remove the resulting water and sediment loosened from the pipeline walls. The water will be filtered to remove the PCB contaminated sediment. The water will then be analyzed and, if necessary, filtered again to ensure there are no detectable levels of PCBs prior to it being discharged to the POTW. The estimated two barrels of sediment and twenty barrels of RI generated waste will be analyzed to determine the level of PCBs. If PCB levels are 50 ppm or greater, the contaminated material will be incinerated off-site in accordance with the TSCA Spill Policy. If PCB levels are below 50 ppm, disposal will occur at a U.S. EPA approved facility.

The estimated cost for the selected remedy is $24,500. A breakdown of the cost is presented in Table 12.

THE STATUTORY DETERMINATIONS

Both U.S. EPA and IDEM believe that Alternative 2 will satisfy the statutory requirements of Section 121 of CERCLA to protect human health and the environment, comply with ARARs, be cost-effective, and utilize permanent solutions and alternate treatment or resource recovery technologies to the maximum extent practicable.

Protection of Human Health and the Environment

The selected remedy protects human health and the environment through hydraulic jetting and removal of PCB contaminated sewer sediment, and disposal of contaminated sediment at a U.S. EPA approved disposal or incineration facility. As long as the sewerline is cleanable, Alternatives 2, 3, and 4 are equally protective of human health and the environment. However, if the sewer cleaning is impaired by design constraints, then Alternatives 3 and 4 would be more protective than Alternative 2.

Sewer pipeline cleaning will be performed as a cautionary measure to prevent potential future release from the contaminated sewer line to the Lebanon POTW. Although no risk assessment was performed for the sewer sediments and no specific state or federal ARARs exist for PCBs found in sewer sediments, health-based guidance clean-up levels set forth in the

TSCA Spill Policy will be met. There are no short-term threats associated with the selected remedy that cannot be readily controlled. In addition, no adverse cross-media impacts are expected from the remedy.

Cost-Effectiveness

The selected remedy is cost-effective because it will provide overall protectiveness relative to its cost of $24,500 based on the assumption that the sewer line is intact. In addition the selected remedy provides a cost-efficient method of reducing potential hazards posed by the contaminated sewer sediments.

Compliance with ARARs

Presently, there are no chemical-specific action levels for PCBs in soils, groundwater, or sanitary sewer sediments. No federal or state standards, criteria, or guidelines have been identified for PCBs in sediments. However, there are ARARs which address how PCB contaminated materials are to be disposed. The applicable diposal requirements are found at 40 CFR 761.60(a)(4) and require that materials disturbed or excavated which contain 50 ppm or greater PCBs be disposed at a landfill authorized under 40 CFR 761.75 or an incinerator authorized under 40 CFR 761.70. In addition, guidance values for PCBs in sewer sediments which may be considered are available and these are discussed below.

In addition to ARARs, many Federal and State environmental and public health programs also develop criteria, policies, guidance, and proposed standards that are not legally applicable, but that may provide useful information or recommended procedures (referred to as "To Be Considered" criteria (TBC)). These guidance or policy documents may be considered and used as appropriate, where necessary to ensure protectiveness. If no ARARs address a particular situation, to-be-considered policies, criteria or guidelines should be used to set cleanup targets.

In the absence of ARARs, U.S. EPA and IDEM have decided to utilize the

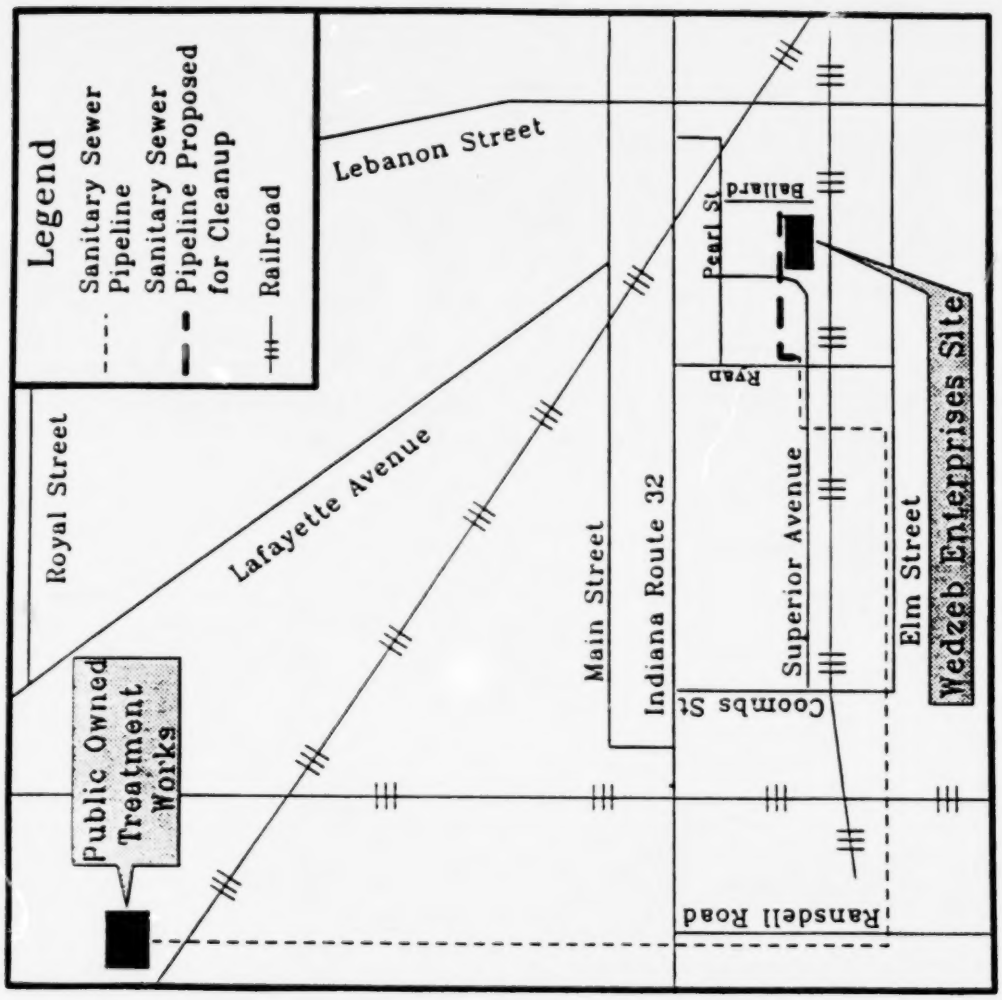


Figure 4

Proposed Remedial Action

TABLE 12 - DETAILED COST ESTIMATE
ALTERNATIVE 2: PIPE CLEANING/INSPECTION

COST COMPONENT	COST ELEMENT	QUANTITY	UNIT	UNIT COST ($)	CAPITAL COST ($)	ANNUAL O&M COST ($)	PRESENT WORTH COST ($)
Remedial Investigation Derived Waste	Mobilization	1	LS	1840	1,840		
	Sample Analysis	5	EA	500	2,500		
	Disposal	20	EA	120	2,400		
	Subtotal				6740		
Hydraulic Jetting	Jetting	14	Hr	70	945		
	Vacuum Pump	14	Hr	70	980		
	Container Drums	2	EA	20	40		
	Sample Analysis	5	EA	250	1,250		
	Sediment Disposal	2	EA	120	240		
	Storage Tank	1	LS	2000	2,000		
	Subtotal				5,455		
Portable Wastewater Filter	Filter and Stand	1	LS	2000	2000		
	Filter Bag	5	Ea	12	60		
	Subtotal				2060		
Inspection	Television Inspection	1	LS	650	650		
Alternative 2 Subtotal					14,905		
Mobilization, Bonds, and Insurance (5%)					828		
Health and Safety (5%)					828		
CONSTRUCTION COST SUBTOTAL					16,561		
Bid Contingencies (10%)					1,656		
Scope Contingencies (10%)					1,656		
CONSTRUCTION TOTAL					19,873		
Permitting and Legal (5%)					994		
Services During Construction (8%)					1,590		
TOTAL IMPLEMENTATION COST					22,457		
Engineering Design Cost (5%)					1,987		
TOTAL CAPITAL COST					24,444		
Total Present Worth Capital Cost							24,444
Total Annual O&M Cost						0	
Present Worth O&M Cost							0
PRESENT WORTH COST							24,444

EST. $24,500

TSCA PCB Spill Policy (40 CFR Part 761.120) established by EPA in April 1987. The spill policy established health based requirements for the cleanup of PCB spill of material containing 50 ppm or greater. The TSCA policy specifically excludes existing sites and spills directly to surface water, drinking water, sewers, grazing lands, and vegetable gardens, and recommends site-specific determinations for these areas.

The TSCA policy requires that contaminated soil in restricted access areas be cleaned to 25 ppm PCBs by weight; soil in non-restricted access areas (defined as those areas less than 0.1 kilometer away from a residential/commercial area) should be cleaned to 10 ppm provided that soil is excavated to a minimum depth of 10 inches and is replaced with clean soil. These cleanup levels are health based and can be applied to contaminated sewer sediments. If all of the sediment is successfully removed from the sewer line, PCB levels are expected to be well below 10 ppm, and possibly nondetectable.

In addition, the sewer cleaning water will be filtered to ensure that PCB levels will be below the local limit (PCB detection limit) of 0.1 ppb prior to it being discharged to the sewer.

Utilization of Permanent Solutions to the Maximum Extent Practicable

U.S. EPA and IDEM have determined that the selected remedy represents the maximum extent to which permanent solutions and treatment can be practically utilized in a cost efficient manner. Among those alternatives that provide overall protectiveness of human health and the environment and comply with the TSCA spill policy, the selected remedy offers the best balance of trade offs among long-term effectiveness and permanence, reduction in toxicity, mobility and volume through treatment, short-term effectiveness, implementability and cost.

The selected remedy can be implemented more quickly, with less community impact and at a lower cost than the other treatment alternatives. Therefore, it is determined to be the most appropriate solution for the contaminated sewer sediments at the Wedzeb Enterprises site.

APPENDIX A

WEDZEB ENTERPRISES

ADMINISTRATIVE RECORD INDEX

as of June 23, 1989

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USEPA Remedial Action Superfund site
Wedzeb Enterprises, Inc.
Lebanon, Indiana

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2 A1	9	81/09/01	Letter transmitting analysis of Wedzeb fire samples	Doyle, IN St. Bd. of Health	Boone County Health Dept.	Correspondence	1
2 A11	2	81/10/08	Letter re: proposal for cleanup and disposal at Wedzeb	Pickard, IN Env. Mgt. Bd.	Daniels, Wedzeb Ent.Inc.	Correspondence	2
2 A13	5	82/03/04	Letter in response to Wedzeb Atty.'s 12-28-81 letter re: Wedzeb's proposal to deal with site	IN Environmental Mgt. Bd.	Rogers, Wedzeb Atty.	Correspondence	3
2 B4	1	82/03/10	Letter re: The removal of PCB contaminated fire debris	Rogers, Wedzeb Atty.	Environmental Mgt. Bd.	Correspondence	4
2 B5	1	82/04/30	Letter re: Progress of PCB removal by Wedzeb Ent. Inc.	IN Environmental Mgt. Board	Rogers, Wedzeb Atty.	Correspondence	5
2 B6	1	82/05/07	Letter re: Potential storage, disposal and labeling problems with small PCB capacitors	Hawvermale, Boone Cty. Health Dept.	Rasor, IN St.Bd.of Health	Correspondence	6
2 B7	9	82/06/17	Letter requesting a one year exemption to continue distribution of capacitors	Daniels, Wedzeb Ent., Inc.	Repasch, USEPA	Correspondence	7
2 C2	1	83/11/03	Letter re: Wedzeb's listing for emergency cleanup by USEPA	Rogers, Atty. for Wedzeb	Street, USEPA	Correspondence	8
2 C3	3	84/01/16	Letter forwarding formalized remedial action plan	Lees, Cecos Environmental Inc.	Rogers, Wedzeb Atty.	Correspondence	9
2 C6	5	84/01/30	Letter informing PRP Daniels of Wedzeb of his status	Constantelos, USEPA	Daniels, Wedzeb Ent. Inc.	Correspondence	10

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USEPA Remedial Action Superfund site
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Lebanon, Indiana

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			under CERCLA and other laws				
2 C11	4	84/03/05	Letter submitting info. about the Wedzeb site	Daniels, Wedzeb Ent. Inc.	Constantelos, USEPA	Correspondence	11
2 D1	4	84/03/05	Letter as follow-up to 2-27-84 meeting between USEPA and Weston-Sper	Weston-Sper	Street, USEPA	Correspondence	12
2 D5	3	84/04/06	Letter commenting on the proposal for cleanup by Cecos	IN Environmental Mgt. Bd.	Rogers, Wedzeb Atty.	Correspondence	13
2 D8	1	84/04/19	Letter re: Request by the state of IN for Jard to commence a cleanup action	Schaefer, Deputy Atty. General	Rollins, Jard Co.	Correspondence	14
2 D9	3	84/07/11	Letter re: amended cleanup proposal	Rogers, Wedzeb Atty.	Kinikles, CECOS Env.,Inc.	Correspondence	15
2 D11	38	84/08/01	Letter in response to cleanup proposal	Constantelos, USEPA	Daniels, Wedzeb Ent.,Inc.	Correspondence	16
2 G9	1	84/08/21	Letter re: cleanup proposal by CECOS Environmental, Inc.	Butts, CECOS Env., Inc.	Street, USEPA	Correspondence	17
2 G10	7	84/08/31	Letter re: cleanup of the Wedzeb site	Rogers, Wedzeb Atty.	Constantelos, USEPA	Correspondence	18
3 A4	2	85/06/13	Letter re: fencing in of Wedzeb site area	Rogers, Wedzeb Atty.		Correspondence	19
3 A6	3	85/09/25	Letter transmitting copies of documents USEPA requested	Rogers, Wedzeb Atty.	Berman, USEPA	Correspondence	20
3 A9	2	85/10/02	Letters to Daniels of Wedzeb and Havvernale of IN State Bd. of Health re: Issuance	USEPA	see title field	Correspondence	21

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3 A12	3	85/12/13	Letter informing USEPA that Wedzeb Ent. cannot comply with the terms outlined in CECOS' proposed cleanup plan	Rogers, Wedzeb Atty.	Berman, USEPA	Correspondence	23
3 B1	22	86/09/30	Letter forwarding info. on preliminary investigation done by Weston-Sper (Attachment B deleted-contractor cost info.)	Weston-Sper and USEPA	Strimbu, USEPA	Correspondence	24
3 C8	1	87/10/22	Letter re: Erecting a fence to surround the Wedzeb site	Atwood, Black & Veatch	Daniels, CH2M Hill	Correspondence	25
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3 C10	3	00/00/00	Summary of Wedzeb site			Fact Sheet	27
3 C13	2	85/12/11	Fact Sheet on Wedzeb site	USEPA		Fact Sheet	28
3 D1	6	87/04/00	Fact Sheet on Wedzeb site	USEPA		Fact Sheet	29
3 D7	6	89/02/00	Fact Sheet: Study of Contamination at Wedzeb Ent. Superfund Site Completed	USEPA		Fact Sheet	30
3 D13	1	00/00/00	Agenda for Public Meeting	USEPA		Meeting Notes	31
3 D14	1	86/01/08	Memo re: Meeting notes from 12-18-85 public meeting	Favero, USEPA	Diefenbach, USEPA	Meeting Notes	32
3 E1	1	81/05/07	Memo re: Analysis of samples from Wedzeb Co. Warehouse	Sanders, USEPA	Lee, USEPA	Memorandum	33

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3 E8	1	81/06/22	Memo re: Review of sampling results of the Wedzeb fire	Doyle, IN St. Bd. of Health	IN St. Bd. of Health	Memorandum	35
3 E9	2	81/07/06	Memo re: Analysis of Warehouse Fire Samples for PCBs at Wedzeb	Dupuy,USEPA Toxicant Analysis Cntr.	Elly, USEPA	Memorandum	36
3 E12	4	81/12/28	Memo re: analysis of samples taken at Wedzeb	Traylor, IN St. Bd. of Health	IN St. Bd. of Health	Memorandum	37
3 F2	1	82/12/15	Memo re: Inspection of Wedzeb Ent. Warehouse in Lebanon, IN	Dikinis, USEPA	Bremer, USEPA	Memorandum	38
3 F3	23	85/10/02	Memo re: Immediate Removal Request for Wedzeb	Madany, USEPA	Adamkus, USEPA	Memorandum	39
4 A3	3	86/05/06	Memo re: Change in Scope of Work for Wedzeb site, Action Memo	Theisen, USEPA	Adamkus, USEPA	Memorandum	40
4 A6	28	86/05/23	Memo re: Authorization to proceed with a Remedial Investigation/Feasibility Study and Community Relations Activities at Wedzeb site	Constanrelos, USEPA	Adamkus, USEPA	Memorandum	41
4 C6	1	87/03/26	Memo re: Request for Authorization for Supplemental Funding to Continue Remedial Investigation/Feasiblity Study at the Wedzeb site	Constantelos, USEPA	Adamkus, USEPA	Memorandum	42
4 C7	5	87/08/19	Memo re: Ceiling Increase Request for the Removal at Wedzeb, Action Memo	Theisen, USEPA	Adamkus, USEPA	Memorandum	43

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5 D3	4	85/09/23	Affidavit of Kerry Street	Street, USEPA		Pleadings/Orders	54
5 D7	6	85/09/24	Affidavit of David Favero	Favero, USEPA		Pleadings/Orders	55
5 D13	6	85/09/25	Affidavit of J.Milton Clark			Pleadings/Orders	56
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5 F9	8	85/11/03	Third Party Complaint, Environmental Mgt. Bd. vs. Wedzeb Ent. vs. Aetna Life & Casualty Co., Cincinnatti Insurance Co., USEPA			Pleadings/Orders	58

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5 G13	2	85/12/09	USEPA Environmental News Release: EPA Approves Cleanup Plan for Superfund site, Lebanon, IN	USEPA		Press Release	60
5 A1	5	81/05/04	Initial Report on Wedzeb	Ecology & Environment		Reports/Studies	61
5 A7	7	83/06/21	Report on Inspection to Determine Compliance with the PCB Disposal and Marking Regulations	USEPA		Reports/Studies	62
5 A14	27	83/12/00	Site Assessment and Emergency Action Plan for Wedzeb	Weston-Sper	USEPA	Reports/Studies	63
5 D4	57	84/04/00	Proposal submitted to Wedzeb Enterprises, Inc for Remedial Action at the Wedzeb site	Cecos Environmental, Inc.	Wedzeb Enterprises, Inc.	Reports/Studies	64
6 G7	25	85/00/00	Site Assessment and Emergency Action Plan for Wedzeb with forwarding letter	Weston-Sper	USEPA	Reports/Studies	65
7 B6	17	86/09/30	Technical Assistance Team (TAT) report on the Wedzeb site	Weston-Sper	Strimbu, USEPA	Reports/Studies	66
7 C14	20	86/10/14	Final Community Relations Plan for Wedzeb	CH2M Hill	USEPA	Reports/Studies	67
7 E8	96	86/10/15	Work Plan for Phase I Remedial Investigation at Wedzeb	CH2M Hill	USEPA	Reports/Studies	68
8 G1	570	87/02/13	Quality Assurance Project Plan for Phase I Remedial Investigation at Wedzeb-	CH2M Hill	USEPA	Reports/Studies	69

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81/05/07	Analysis of samples from Wedzeb Co. warehouse narrative summary	USEPA	USEPA	Sampling/Data
81/05/08	Sampling specifics for Wedzeb with narrative	Ecology & Environment	USEPA	Sampling/Data
81/06/16	Analytical report on samples taken from Wedzeb with narrative	USEPA		Sampling/Data
81/06/22	Memo re: Review of sampling results from Wedzeb fire samples	IN St. Bd. of Health	IN St. Bd. of Health	Sampling/Data
81/07/06	Analysis of warehouse fire samples for PCBs	USEPA		Sampling/Data
81/07/31	Analysis results with narrative	Laboratory in Indianapolis	Hazardous Mat. Mgt. Inc.	Sampling/Dataq
81/12/28	Analysis results with narrative	IN State Bd. of Health	IN St. Bd. of Health	Sampling/Data
87/09/02	Lab results for residential soils near Wedzeb Enterprises with quality assurance memo	IN Dept. of Environmental Mgt.		Sampling/Data
87/12/21	Analysis results for several parameters	Enseco-Erco Laboratory	USEPA	Sampling/Data
88/01/07	USEPA Central Regional Lab Sample/Data Report for Inorganics/Organics	USEPA		Sampling/Data
88/02/00	Analysis results for several parameters	USEPA		Sampling/Data

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88/02/26	Results of 15 soil samples taken for SAS dioxin analysis with quality assurance memo	USEPA		Sampling/Data
88/03/08	Results of 18 soil samples taken for SAS dioxin/furan analysis with quality assurance memo	USEPA		Sampling/Data
88/03/08	Results of 19 soil samples taken for SAS dioxin/furan analysis with quality assurance memos	USEPA		Sampling/Data
88/04/06	Results of 19 samples taken for SAS dioxin/furan analysis with narrative and quality assurance memo	USEPA		Sampling/Data
88/05/11	Results of samples taken for total tetra through octa dioxins and furans using USEPA method 8280 with narrative	ChemWest	USEPA	Sampling/Data
88/05/27	Results of reanalysis of 6 soil samples taken for SAS dioxin/furan analysis with quality assurance memo	USEPA		Sampling/Data
88/09/23	Results of 4 soil samples taken for total tetra through octa dioxin and furan analysis with quality control memo	USEPA		Sampling/Data
88/10/05	QA/QC summary of PCDD/ PCDF analysis	Triangle Labs	USEPA	Sampling/Data

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9	Results of 'Wedzeb fire samples' taken in May 81 with Chain of Custody Record	IN St. Bd. of Health		Sampling/Data

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Procedural Guidance on Treatment of Insurers Under CERCLA	Price, USEPA	85/11/21
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MOU Between the ATSDR & EPA	OWSER Dir. 9295.1-01	82/12/00
Federal Lead Remedial Project Management Manual.	OWSER Dir. 9355.1-01	86/12/00
Guidance Document for Providing Alternative Water Supplies	OWSER Dir. 9355.3-01	86/12/00
Standard RI/FS Tasks Under REM Contracts	OWSER Dir. 9242.3-7	86/11/13
The Role of expitited response actions under SARA	OWSER Dir. 9360.0-15	87/02/00
Interim Guidance on State Participation in Pre-Remedial and remedial response.	OWSER Dir. 9375.1-09	87/02/00
Interim Guidance: Streamlining the CERCLA Settlement Decision Process.	OWSER Dir. 9835.4	87/02/16
Guidance on Implementation of the "Contribute to Remedial Performance' Provision.	OWSER 9360.0-13	87/04/00
Memo:from Chief of CERCLA Enforcement New Feasability Study Statements of Work.	N. Wiegergang-USEPA	87/04/08
Final Guidance for the Cooperation of ATSDR Health Assessment Activities with the Superfund Remedial Process.	OWSER Dir. 9285.4-02	87/04/22
Superfund Selection of Remedy: Background Documentation on Remaining Issues.		87/05/12
Superfund Public Health Evaluation Manual.	OWSER Dir. 9285.4-01	87/07/00
Interim Guidance on Compliance with Applicable or Relevant	OWSER Dir. 9234.0-05	87/07/00

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and Appropriate Requirements. 52 FR 32496 (8/27/87).		
Listing Municipal Landfills on the NPL. Memo from the Director of the office of Emergency and Remedial Response.	Henry L. Longest II-USEPA	87/08/21
RI/FS Statements of Work (SOW). Memo from Chief of CES, MI/WI unit.	Paul Bitter-USEPA	87/09/28
Interim Guidance on PRP's participation in RI/FS.	OWSER Dir. 9835.1a	87/10/02
Interim Final Guidance on Removal Action Levels at Contaminated Drinking Water Sites.	OWSER Dir. 9360.1-10	87/10/06
Interim Guidance on Administrative Records for Decisions on Selection of CERCLA Response Actions.	OWSER Dir. 9833.4	87/11/09
Revised Procedures for Planning and Implementing Off Site Response Actions.	OWSER Dir. 9834.11	87/11/13
FY '88 Region V ROD Process Guidance. Memo from Chief of the Emergency & Remedial Response Branch-Waste Mgmt. Div.	Mary Gade-USEPA	88/01/29
Draft Guidance on Preparing Superfund Decision Documents: The Proposed Plan and ROD.	OWSER Dir. 9355.3-02	88/03/00
Draft Guidance on PRP Participation in the RI/FS.	OWSER Dir. 9835.1A	88/04/00
Record of Decision Questions & Answers - Draft.		88/04/01

ACRONYM GUIDE FOR THE ADMINISTRATIVE RECORD
Wedzeb Enterprises, Inc.
Lebanon, Indiana

ACRONYM	DEFINITION
AR	Administrative Record
ATSDR	Agency for Toxic Substance and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation and Liablity Act of 1980
CORPS	United States Army Corp of Engineers
FY	Fiscal Year
HRS	Hazard Ranking System
MOU	Memorandum of Understanding
NPL	National Priorities List
OSWER	USEPA Office of Solid Waste and Emergency Response
PCB	Polychlorinated Biphenyl
PRP	Potential Responsible Party
Q.C.	Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource, Conservation and Recovery Act
RI/FS	Remedial Investigation/ Feasibility Study
ROD	Record of Decision
SARA	Superfund Amendment and Reauthorization Act of 1986

Administrative Record Index Update No. 1
USEPA Remedial Action Superfund site
Wedzeb Enterprises, Inc.
Lebanon, IN

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCNUMBER
	8	89/05/00	USEPA Fact Sheet: Wedzeb Enterprises Superfund site Proposed Plan	USEPA		Fact Sheet	1
	44	89/05/15	Final Sewer Remedial Action Technical Memo at Wedzeb	Black & Veatch	USEPA	Reports/Studies	2
	2	89/05/30	Certified letter re: Work scheduled to be undertaken at Wedzeb site- 122(a) Special Notice Letter	Niedergang, USEPA	Daniels, Wedzeb Ent. Inc.	Correspondence	3
	31	89/06/01	Wedzeb Enterprises Superfund site Public Meeting Transcript			Meeting Notes	4

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ACRONYM GUIDE FOR THE ADMINISTRATIVE RECORD
Wedzeb Enterprises, Inc.
Lebanon, Indiana

ACRONYM	DEFINITION
TAG	Technical Assistance Grant
TAT	Technical Assistance Team
US DOJ	United States Department of Justice
USEPA	United States Environmental Protection Agency

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OSWER Guidance Checklist	OSWER	00/00/00
TSCA 40 CFR Part 761	USEPA	84/07/00
Health Effects Assessment Documents (58 Chemical Profiles) USEPA # 540/1-86/001-058	USEPA	84/09/01
40 CFR Part 761, PCBs; Manufacture, Processing, Distribution in Commerce and Use Prohibitions; Use in Electrical Transformers; Proposed Rule	USEPA, published in Federal Register	84/10/11
CERCLA Compliance with Other Environmental Statutes OSWER # 9234 0-2	Porter, USEPA	85/10/02
Endangerment Assessment Guidance (Secondary Reference) OSWER # 9850 0-1	Porter, USEPA	85/11/22
Endangerment Assessment Guidance OSWER # 9850 0-1	Porter, USEPA	85/11/22
ATSDR Health Assessments on NPL sites	US Dept. of HHS/ATSDR	86/06/16
Guidelines for Exposure Assessment (Federal Register 9-24-86)	USEPA	86/09/24
Guidelines for Carcinogen Risk Assessment (Federal Register 9-24-86)	USEPA	86/09/24
Superfund Public Health Evaluation Manual OSWER # 9285 4-1	USEPA	86/10/01
Superfund Federal-lead Remedial Project Management Handbook OSWER # 9355 1-1	USEPA	86/12/01

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Interim Guidance on Superfund Selection of Remedy OSWER # 9355 0-19	Porter, USEPA	86/12/24
Interim Policy for Assessing Risks of "Dioxins" Other Than 2,3,7,8-TCDD	Thomas, USEPA	87/01/07
Final Guidance for the Coordination of ATSDR Health Assessment Activities with the Superfund Remedial Process OSWER # 9285 4-02	Porter, USEPA/ATSDR	87/05/14
EPA's Implementation of the Superfund Amendments and Reauthorization Act of 1986	Thomas, USEPA	87/05/21
RI/FS Improvements OSWER # 9355 0-20	Longest, USEPA	87/07/23
Land Disposal Restrictions	Longest, Lucero, USEPA	87/08/11
PCB Contamination-Regulatory and Policy Background	Hanson, USEPA	87/09/10
Remedial Action Costing Procedures Manual	USEPA/CH2M Hill/JRB Associates	87/10/01
Superfund Exposure Assessment Manual OSWER # 9285 5-1	USEPA	88/04/01
Information on Drinking Water Action Levels (Secondary Reference)	Fields, USEPA	88/04/19
RI/FS Improvements Follow-up OSWER # 9355 3-05	Longest, USEPA	88/04/25
Community Relations in Superfund: A Handbook (Interim Version)	USEPA	88/06/01

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OSWER # 9230 0-03B		
CERCLA Compliance with Other Laws Manual OSWER # 9234 1-01	USEPA	88/08/08
User's Guide to the Contract Lab Program OSWER # 9240 0-1	USEPA	88/12/01

APPENDIX B

WEDZEB ENTERPRISES

STATE OF INDIANA LETTER OF CONCURRENCE

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317-232-8603

June 30, 1989

Mr. Valdas V. Adamkus
Regional Administrator
U. S. Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Re: Record of Decision
Wedzeb Enterprises, Inc.
Lebanon, Indiana

Dear Mr. Adamkus:

The Indiana Department of Environmental Management (IDEM) has reviewed the U. S. Environmental Protection Agency's draft Record of Decision. The IDEM is in full concurrence with the selected remedial alternative presented in the document.

The alternative includes cleaning 600 feet of the sanitary sewer system pipeline, using a hydraulic jetting method to dislodge contaminated sediment from the pipeline walls, and removing the water and sediments loosened from the pipeline walls with a vacuum pumping system. After the cleaning, the sewer pipeline would be inspected with a televisual method to assure that the cleaning process has been successful. All waste generated during the Remedial Action would be collected and removed from the site for proper diposal.

Our staff has been working closely with Region V staff in the selection of an appropriate remedy and is satisfied that the selected alternative adequately addresses the public health, welfare and the environment with regard to the Wedzeb Enterprises, Inc., site.

Please be assured that IDEM is committed to accomplishing cleanup of all Indiana sites on the NPL and intends to fulfill all obligations required by law to achieve that goal.

Sincerely,

Kathy Prosser
Commissioner

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